

# State of Alaska

Department of Transportation  
and Public Facilities  
Southeast Region

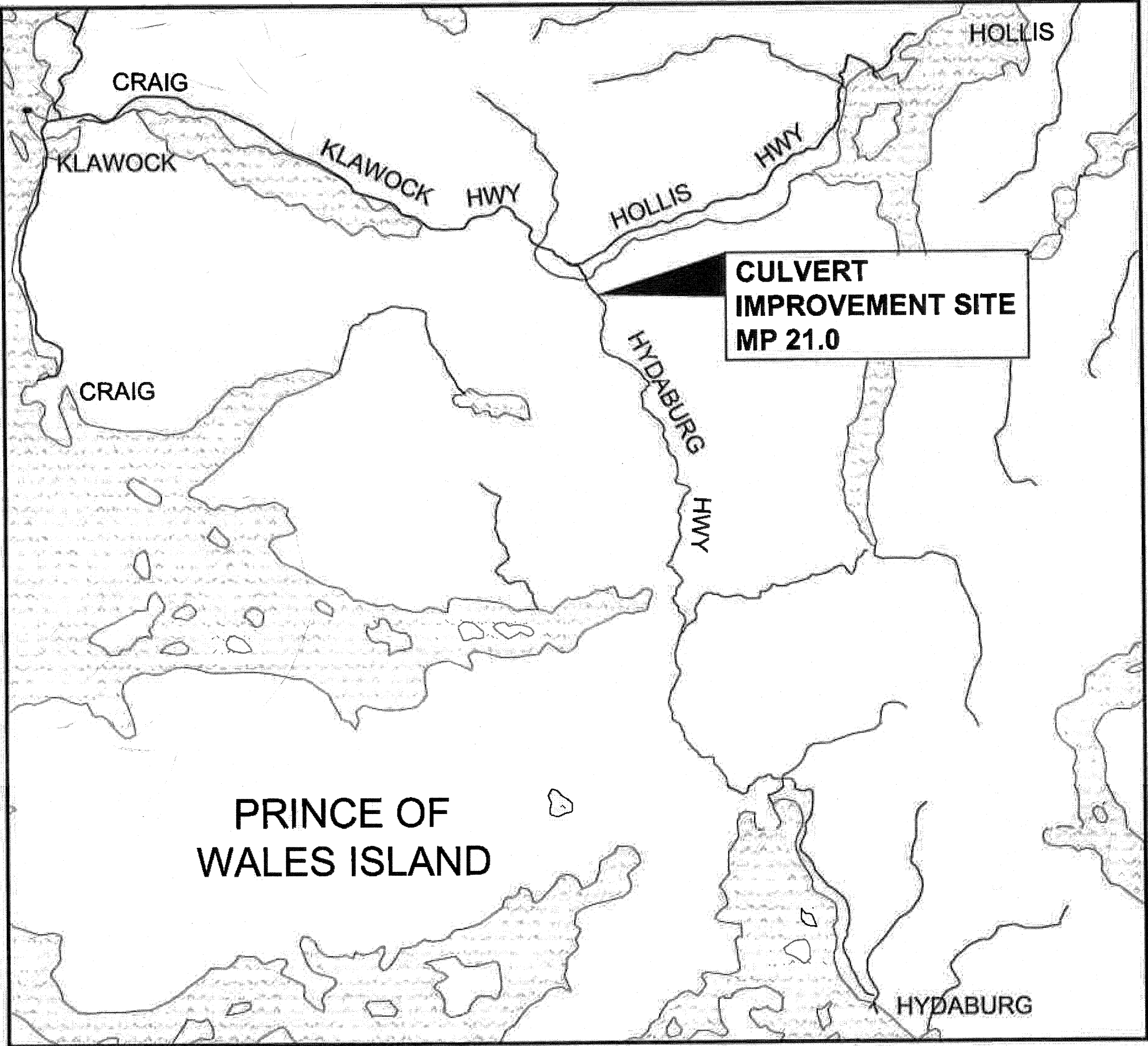
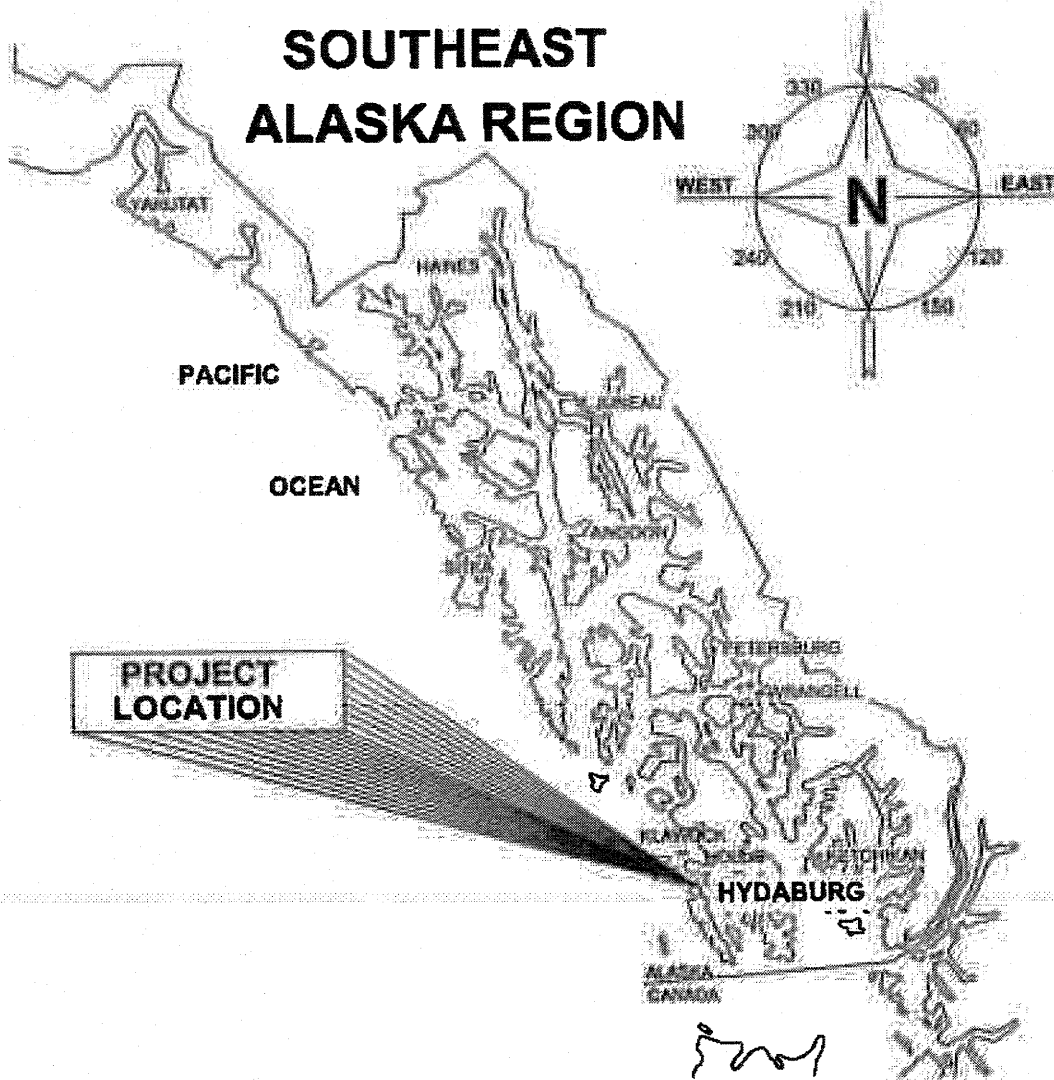
## PRINCE OF WALES ISLAND, ALASKA POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS

PROJECT No. 68026 / FS #07RO-11100100-076

MAY 12, 2014

The undersigned hereby  
certifies that this duplicated  
document is an exact and  
true copy of the original.

*Cody Sahn*



VICINITY MAP

### AS-BUILT PLANS

CONTRACTOR: SOUTHEAST ROAD BUILDERS, INC.  
PROJECT ENGINEER: KERI WILLIAMSON  
BEGIN DATE: JULY 11, 2014  
END DATE: SEPTEMBER 15, 2014

### DESIGN DESIGNATION

A.D.T. 2011	=	139
A.D.T. 2031	=	150
D.H.V. (11.5%) 2011	=	16
D.H.V. (11.5%) 2031	=	18
% T	=	9.5
V	=	30/35 MPH
E.A.L.	=	50,000
TYPE OF PROJECT	=	3R

### PROJECT SUMMARY

BOP	=	STA. 5+10
EOP	=	STA. 6+00
CDS ROUTE NO.	=	292100
LENGTH OF PROJECT	=	90 FT
LENGTH OF PAVING	=	90 FT
WIDTH OF PAVING	=	22 FT
LENGTH OF GRADING	=	90 FT

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1 D-04.21 E-13.00

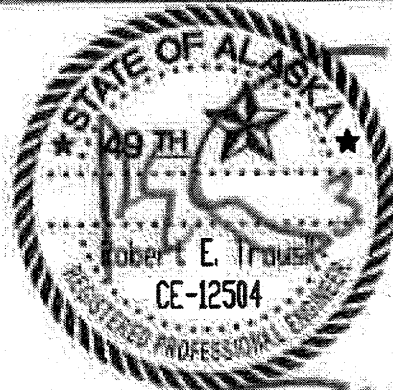
### INDEX

SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	SURVEY CONTROL PLAN
B1	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1	SUMMARIES
E1-E2	MISCELLANEOUS DETAILS
F1-F2	PLAN & PROFILE SHEETS
P1-P2	EROSION & POLLUTION CONTROL DETAILS
Q1	STREAM LAYOUT
T1	TRAFFIC CONTROL PLANS

PATH: Q:\POW\68026\PLANSET\68026\_A1\_TITLE.DWG TAB:A1

Tuesday, September 10, 2013 8:50:29 AM  
PLOT: PSPACE OR MSPACE: 1=1(F)

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION



APPROVED: *L. Pat Carroll*  
REGIONAL PRE-CONSTRUCTION ENGINEER  
L. PAT CARROLL, P.E.

3/20/14  
DATE

APPROVED: *Albert H. Clough*  
DIRECTOR, SOUTHEAST REGION  
ALBERT H. CLOUGH, CPG

3-21-2014  
DATE

CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD  
CONDITION:

*Albert H. Clough*  
CONSTRUCTION PROJECT MANAGER

2-11-2015  
DATE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68026 FS #07RO-11100100-076	2014	A1	13



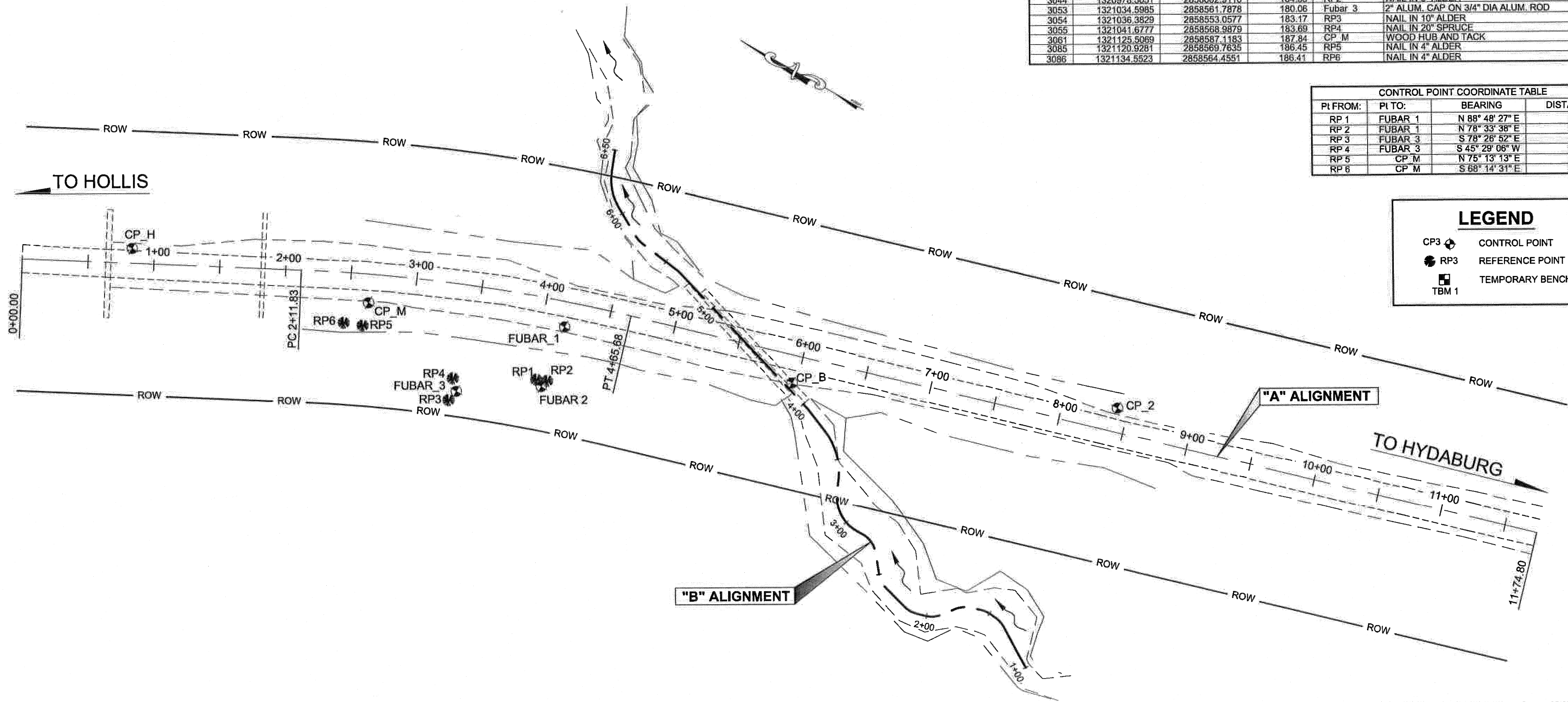
FOR INFORMATION PURPOSES ONLY

CONTROL POINT COORDINATE TABLE					
PI #	NORTHING	EASTING	ELEVATION	DESCRIPTOR	CONTROL DESCRIPTION
3001	1320590.8111	2858800.1151	189.54	CP 2	WOOD HUB AND TACK
3002	1321301.6533	2858534.0170	190.97	CP H	WOOD HUB AND TACK
3003	1320984.1710	2858679.7325	187.98	CP A	WOOD HUB AND TACK
3004	1320815.6586	2858694.1131	185.37	CP B	WOOD HUB AND TACK
3005	1320987.0347	2858645.0628	186.53	Fubar 1	2" ALUM. CAP ON 3/4" DIA ALUM. ROD
3041	1320980.2944	2858596.9694	179.93	Fubar 2	2" ALUM. CAP ON 3/4" DIA ALUM. ROD
3043	1320986.0891	2858599.6349	183.99	RP1	NAIL IN 10" SPRUCE
3044	1320976.5051	2858602.9110	184.55	RP2	NAIL IN 6" ALDER
3053	1321034.5985	2858561.7878	180.06	Fubar 3	2" ALUM. CAP ON 3/4" DIA ALUM. ROD
3054	1321036.3829	2858553.0577	183.17	RP3	NAIL IN 10" ALDER
3055	1321041.6777	2858568.9879	183.69	RP4	NAIL IN 20" SPRUCE
3061	1321125.5069	2858587.1183	187.84	CP M	WOOD HUB AND TACK
3085	1321120.9281	2858569.7635	186.45	RP5	NAIL IN 4" ALDER
3086	1321134.5523	2858564.4551	186.41	RP6	NAIL IN 4" ALDER

CONTROL POINT COORDINATE TABLE			
PI FROM:	PI TO:	BEARING	DISTANCE
RP 1	FUBAR 1	N 88° 48' 27" E	45.44 FT.
RP 2	FUBAR 1	N 78° 33' 38" E	43.01 FT.
RP 3	FUBAR 3	S 78° 26' 52" E	8.91 FT.
RP 4	FUBAR 3	S 45° 29' 06" W	10.10 FT.
RP 5	CP M	N 75° 13' 13" E	17.95 FT.
RP 6	CP M	S 68° 14' 31" E	24.40 FT.

LEGEND

- CP 3 CONTROL POINT  
RP 3 REFERENCE POINT  
TBM 1 TEMPORARY BENCH MARK



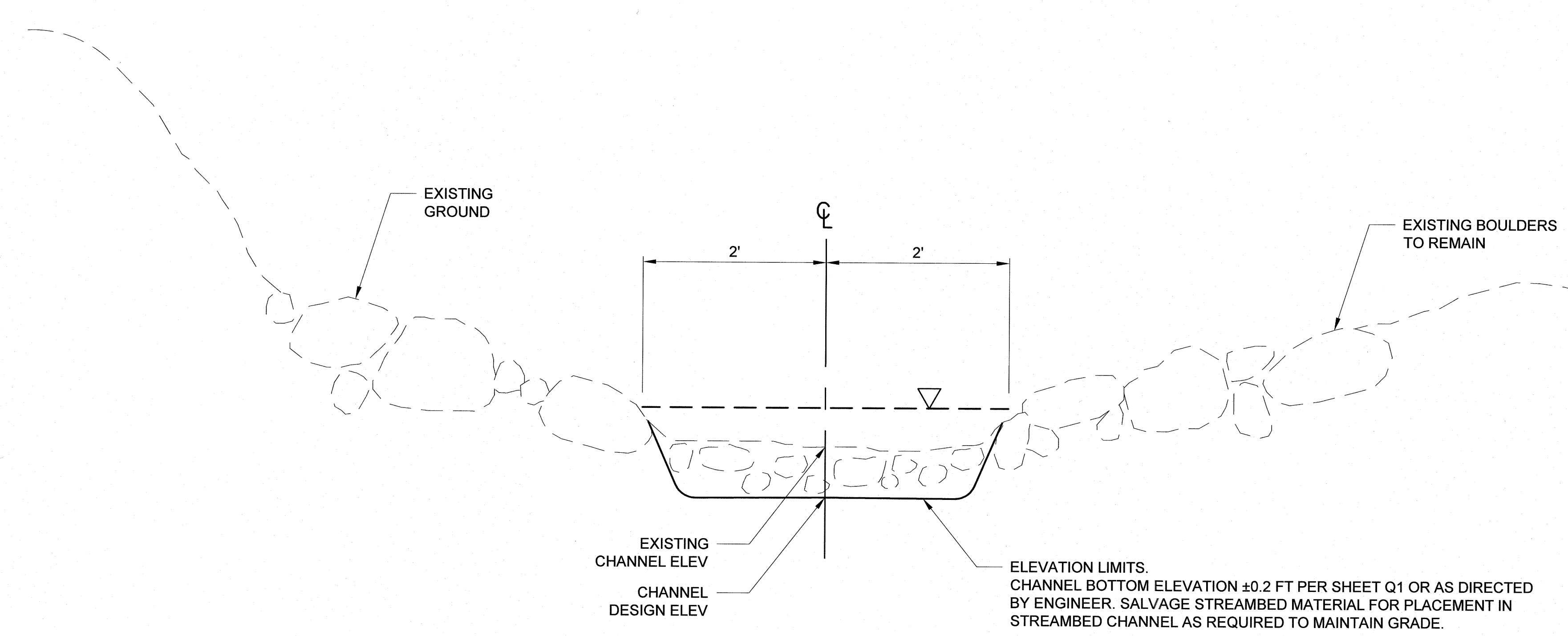
NOTES:

- THE CONTROL PLAN IS FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL REESTABLISH SURVEY CONTROL FROM LOCATED CONTROL POINTS SHOWN ON THIS SHEET.
- CONTROL POINTS AND REFERENCE POINTS ARE IN ACCORDANCE WITH NAD27 ALASKA STATE PLANE, ZONE ONE COORDINATES.
- CONTROL POINTS FUBAR 1, 2, & 3 ARE 3/4" x 30" ALUMINUM ROD WITH 2" ALUMINUM CAPS. ALL OTHER CONTROL POINTS ARE TACKS IN WOODEN HUBS.
- REFERENCE POINTS ARE NAILS IN TREES. TREE SPECIES AND DIAMETER ARE LISTED IN THE COORDINATE TABLE
- ALL DIMENSIONS PROVIDED ARE IN FEET AND TENTHS, UNLESS OTHERWISE SHOWN AS INCHES.
- SURVEY COORDINATES WERE ESTABLISHED BY RTK GPS SURVEY AND SHOULD BE ASSUMED TO BE LOCAL COORDINATES FOR THIS PROJECT

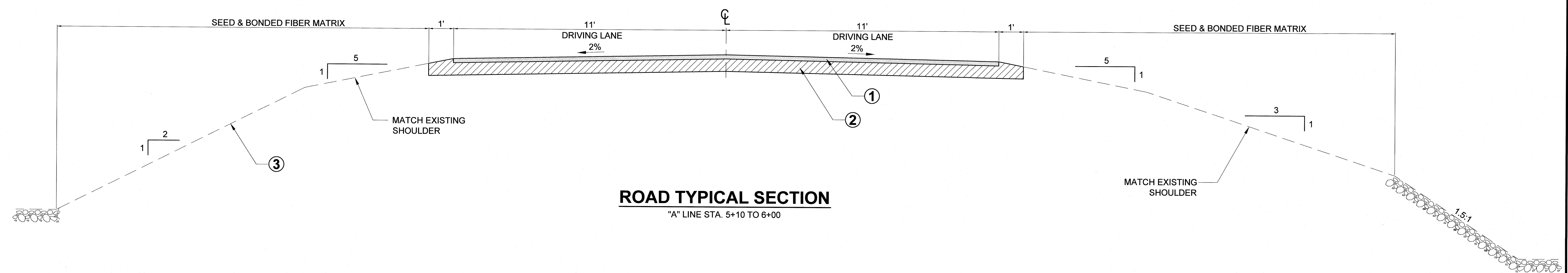
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
PE *[Signature]* Date 11/2/14

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY:	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION <b>POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS PROJECT # 68026</b>
DESIGNED BY:	<b>SURVEY CONTROL PLAN</b>
DRAWN BY: R. GRANTHAM	
PATH: Q:\Pow\68026\Plense\68026_A2_Control Survey Data.dwg	
TAB: A2	PROJECT DESIGNATION <b>68026</b> FS #07RO-11100100-076
REVISIONS NO. DATE DESCRIPTION	YEAR <b>2014</b>
	SHEET NO. <b>A2</b>
	TOTAL SHEETS <b>13</b>



**TYPICAL STREAM CHANNEL SECTION**  
"B" LINE STA. 2+22 TO 4+00



**ROAD TYPICAL SECTION**  
"A" LINE STA. 5+10 TO 6+00

**LEGEND**

- ① 2" ASPHALT CONCRETE, TYPE II; CLASS B
- ② 6" AGGREGATE BASE COURSE, GRADING D-1
- ③ EXISTING GROUND

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
PE *[Signature]* Date 12/2/14

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: R. TROUSIL 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION <b>POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS</b> <b>PROJECT # 68026</b>	
DESIGNED BY: C. IVANISZEK DRAWN BY: R. GRANTHAM		<b>TYPICAL SECTIONS</b>	
PATH: Q:\POW68026\PLANSET\68026_B1_TYP.DWG TAB: B1 Tuesday, December 02, 2014 9:50:19 AM GRANTHAM, RICK L (DOT)			
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68026</b> <b>FS #07RO-11100100-076</b>	YEAR <b>2014</b>
		SHEET NO. <b>B1</b>	TOTAL SHEETS <b>13</b>

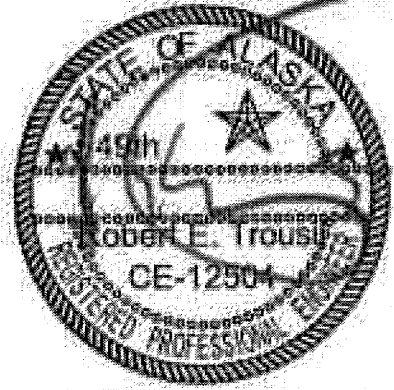


ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QUANTITY
202 (2)	REMOVAL OF PAVEMENT	<del>SQUARE YARD</del>	<del>224</del> ALL REQ'D
202 (4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT	<del>228</del> 224
203 (3)	UNCLASSIFIED EXCAVATION	<del>CUBIC YARD</del>	<del>40</del> ALL REQ'D
301 (1)	AGGREGATE BASE COURSE, GRADING D-1	<del>TON</del>	<del>72</del> ALL REQ'D
401 (1)	ASPHALT CONCRETE, TYPE II, CLASS B	<del>TON</del>	<del>30</del> ALL REQ'D
401 (2)	ASPHALT CEMENT, GRADE PG 58-28	<del>TON</del>	<del>2</del> ALL REQ'D
602 (4)	9'11" X 6'8" STRUCTURAL PLATE ALUMINUM PIPE ARCH	LINEAR FOOT	140
602 (5)	STREAMBED MATERIAL	LUMP SUM	ALL REQUIRED
611 (1)	RIPRAP CLASS I & II	CUBIC YARD	440 106
618 (2)	SEEDING	POUND	25
633 (2)	SEDIMENT BARRIER	LINEAR FOOT	<del>300</del> 74
640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640 (4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
641 (1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641 (3)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641 (5)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED
641 (6)	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642 (3)	THREE PERSON SURVEY PARTY	HOURL	<del>20</del> 0
643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643 (15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED
643 (23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
644 (1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644 (6)	VEHICLES	LUMP SUM	ALL REQUIRED
646 (1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
670 (1)	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED

BASIS OF ESTIMATE		
ITEM NO.	ITEM	ESTIMATING FACTOR
401 (1)	ASPHALT CONCRETE, TYPE II, CLASS B	117 LBS./S.Y./IN.
401 (2)	ASPHALT CEMENT, GRADE PG-58-28	6.0% OF ITEM 401(1)
618 (1)	SEEDING	50 LBS/ACRE
641 (3)	BONDED FIBER MATRIX	3500 LBS/ACRE

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
PE *[Signature]* Date 11/24/14

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: <i>R. TROUSIL</i>		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION	
		14-14 POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS PROJECT # 68026	
DESIGNED BY: C. IVANISZEK		ESTIMATE OF QUANTITIES	
DRAWN BY: R. GRANTHAM			
PATH: Q:\POW\68026\PLANSET\68026_C1_EST.DWG			
TAB: C1 Friday, March 14, 2014 7:21:49 AM		GRANTHAM, RICK L (DOT)	
REVISIONS		PROJECT DESIGNATION	
NO.	DATE	DESCRIPTION	68026
			FS #07RO-11100100-076
		YEAR	2014
		SHEET NO.	C1
		TOTAL SHEETS	13



202(2) REMOVAL OF PAVEMENT			
BEGIN STATION	END STATION	AREA	REMARKS
(FT)	(FT)	(SY)	
4+85	5+40	221	342
TOTAL =		221	342

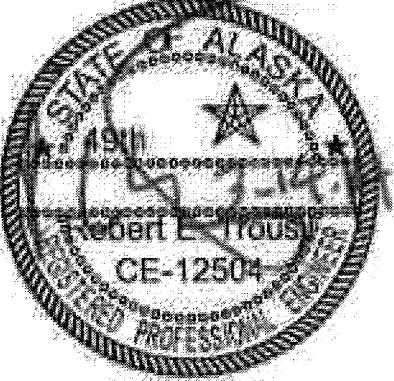
202(4) CULVERT REMOVAL				
STATION	TYPE	DIAMETER (in)	LENGTH (ft)	REMARKS
"A" Line 5+50	Arch	49" x 33"	114	
"A" Line 5+50	Arch	49" x 33"	114	
Total =			228	

602 PIPE SUMMARY								
PIPE NUMBER	602(4)	INLET			OUTLET			REMARKS
		STATION	OFFSET	INV.	STATION	OFFSET	INV.	
P-1	140	"B" Line 4+00		476.80	"B" Line 5+40		473.07	Install 15 Baffles
				176.41				172.39 2.67%

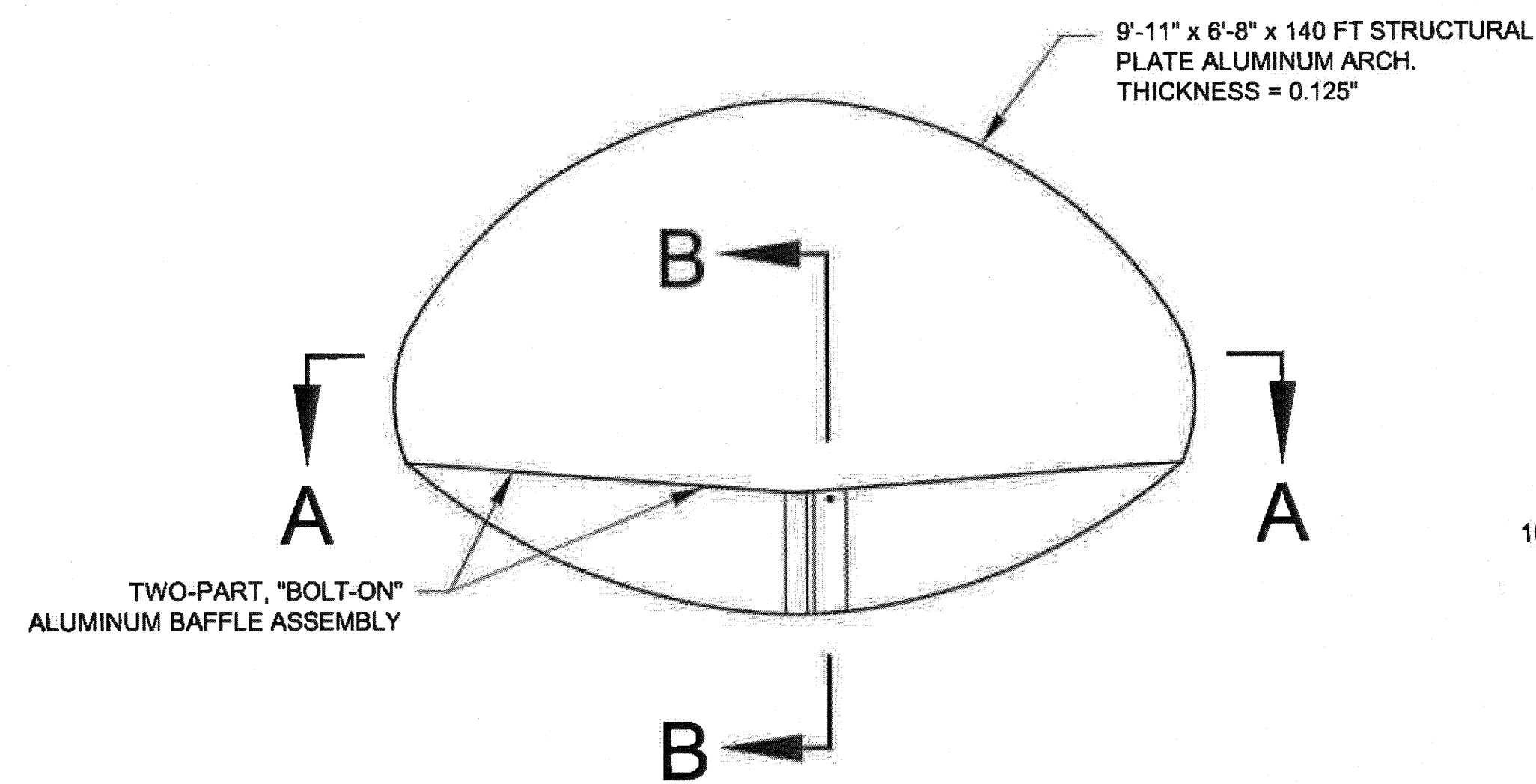
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PE *[Signature]* Date 11/24/14

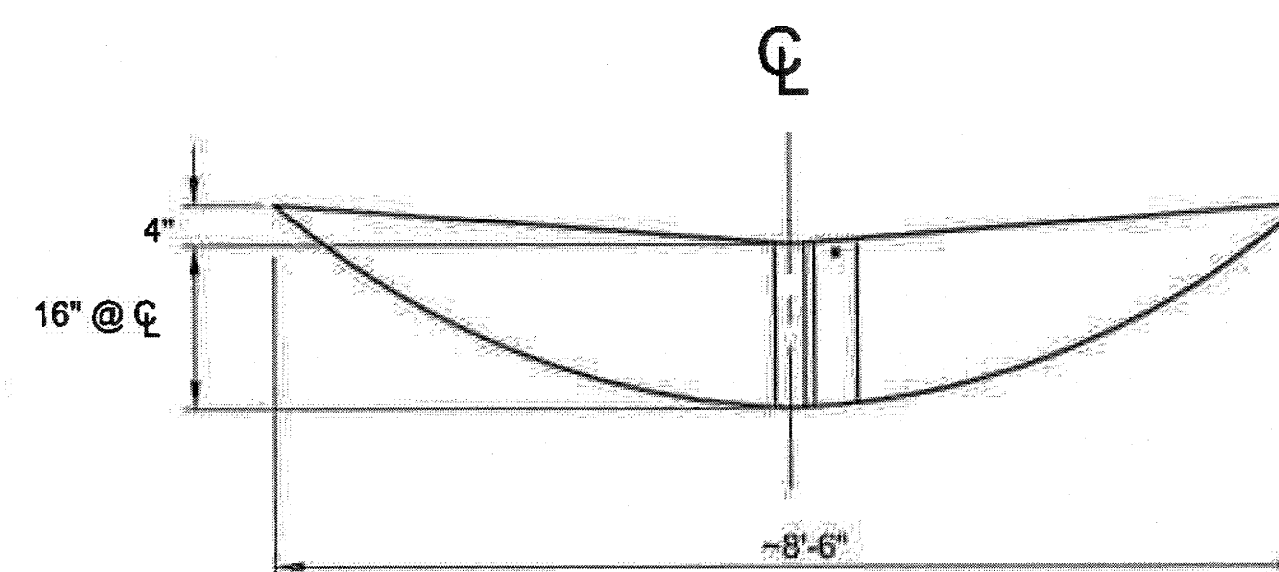
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: R. TROUSIL 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION  <b>POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS          PROJECT # 68026</b>																					
DESIGNED BY: C. IVANISZEK DRAWN BY: R. GRANTHAM		<b>SUMMARIES</b>																					
PATH: Q:\POW\68026\PLANSET\68026_D1_SUMS.DWG TAB: D1      Friday, March 14, 2014 7:22:08 AM		GRANHAM, RICK L (DOT)																					
REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	DATE	DESCRIPTION										<table border="1"> <tr> <td>PROJECT DESIGNATION <b>68026</b></td> <td>YEAR <b>2014</b></td> <td>SHEET NO. <b>D1</b></td> <td>TOTAL SHEETS <b>13</b></td> </tr> <tr> <td colspan="4"><b>FS #07RO-11100100-076</b></td> </tr> </table>		PROJECT DESIGNATION <b>68026</b>	YEAR <b>2014</b>	SHEET NO. <b>D1</b>	TOTAL SHEETS <b>13</b>	<b>FS #07RO-11100100-076</b>			
NO.	DATE	DESCRIPTION																					
PROJECT DESIGNATION <b>68026</b>	YEAR <b>2014</b>	SHEET NO. <b>D1</b>	TOTAL SHEETS <b>13</b>																				
<b>FS #07RO-11100100-076</b>																							





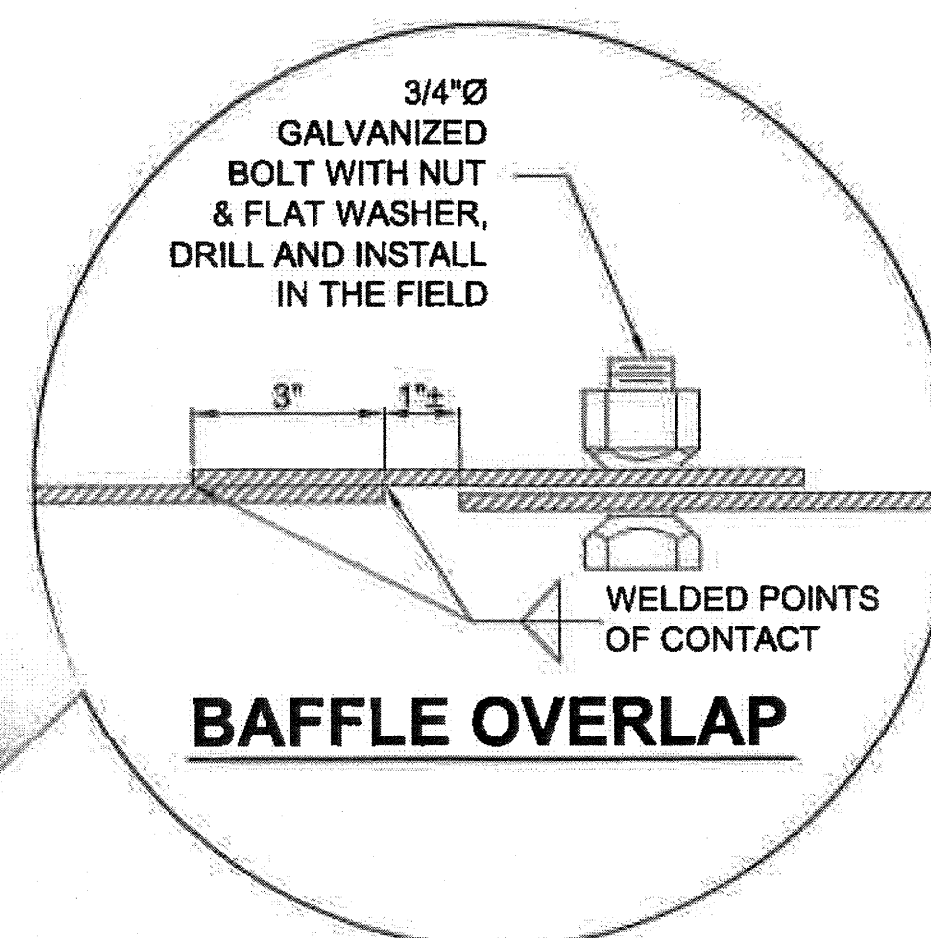
**TWO-PIECE BAFFLE ASSEMBLY**



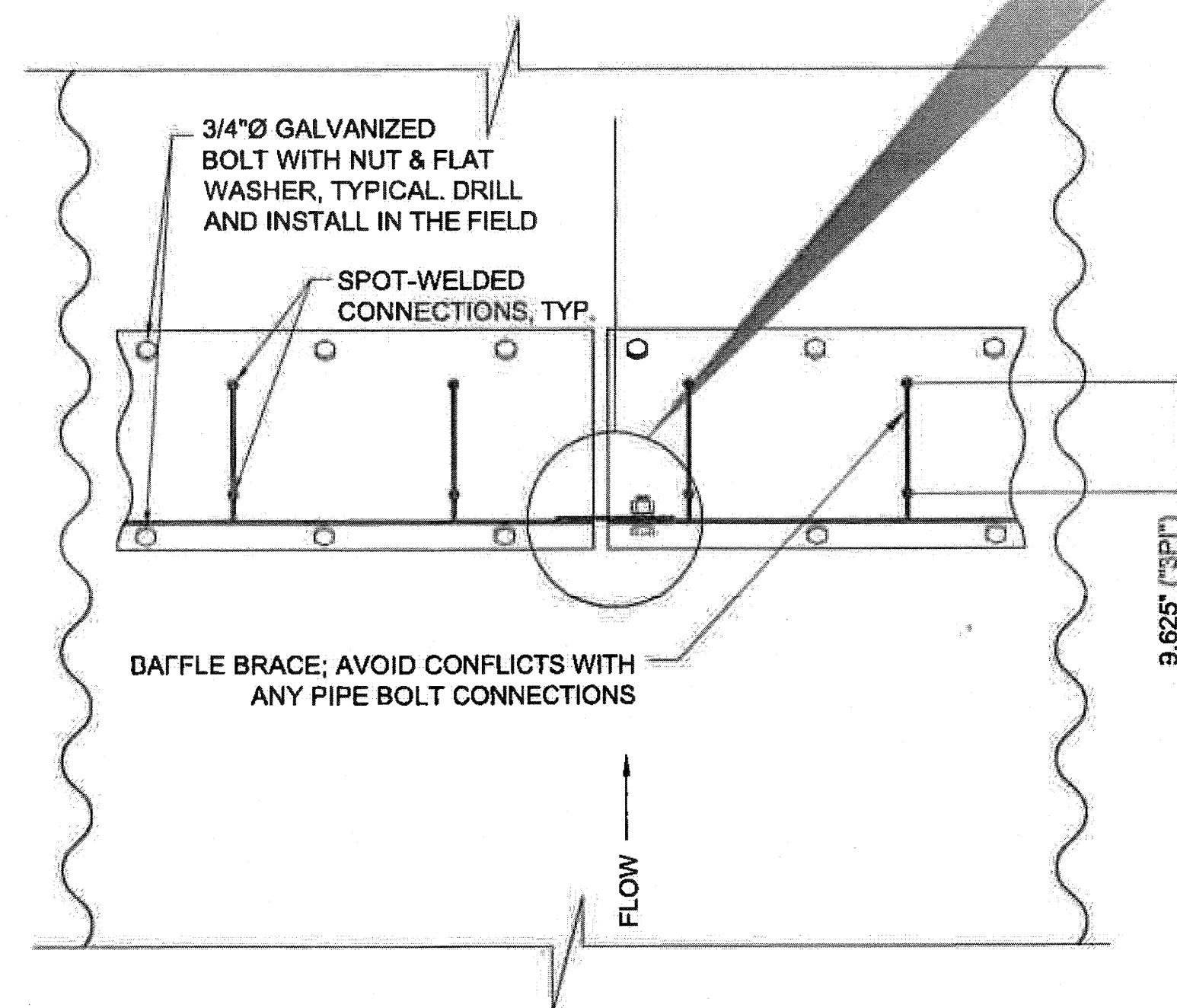
**BAFFLE DETAIL**

**BAFFLE NOTES:**

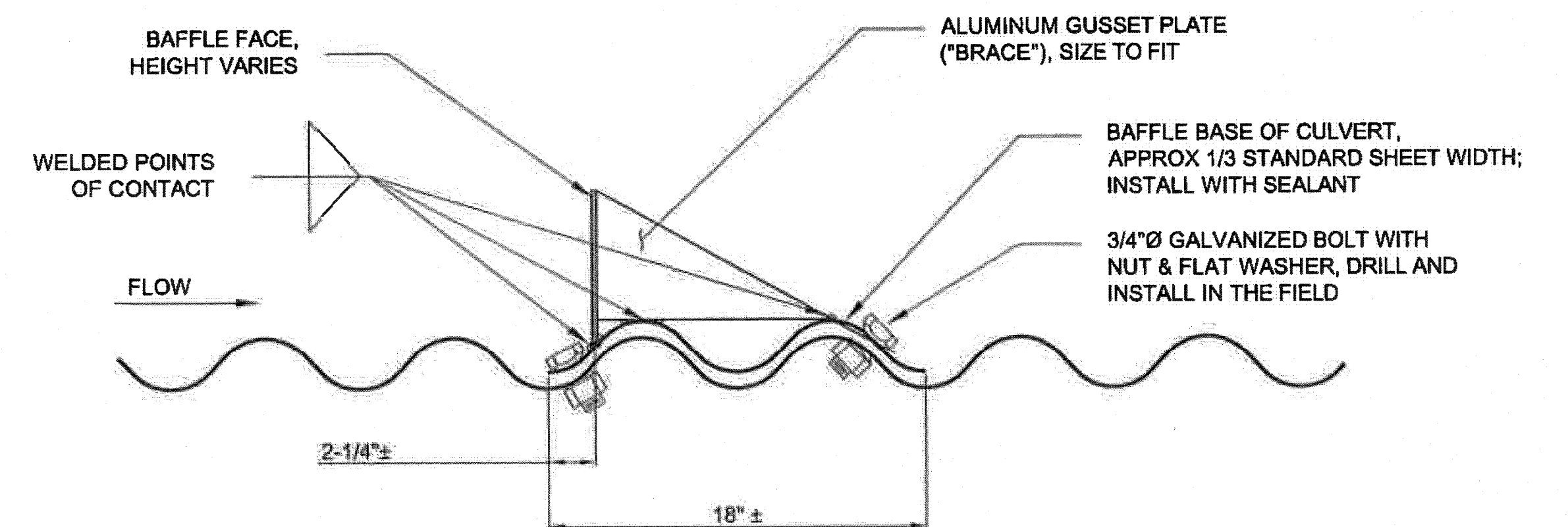
1. PLACE 15 BAFFLES AS SHOWN IN BAFFLE TABLE BELOW. FIRST UPSTREAM BAFFLE AT "B" LINE STA. 4+01, LAST BAFFLE AT "B" LINE STA. 5+39.
2. BAFFLE-PIPE INTERFACE SHALL BE WATER-TIGHT TO THE EXTENT PRACTICABLE. USE MASTIC/SEALANT AT CONNECTIONS THAT ARE COMPATIBLE (AND NON-CORROSIVE) TO THE CORRUGATED ALUMINUM PIPE ARCH AND APPURTENANT HARDWARE.
3. ALL BAFFLES AND BRACES SHALL BE MANUFACTURED FROM 1/4" ALUMINUM SHEET MATERIAL.
4. EACH BAFFLE SHALL HAVE A MINIMUM OF 6 BRACES.
5. ALL DIMENSIONS ON THIS SHEET ARE NOMINAL - BAFFLES SHALL BE MANUFACTURED TO FIT PARTICULAR PIPE.



**BAFFLE OVERLAP**



**BAFFLE SECTION A-A**




**BAFFLE SECTION B-B**

**BAFFLE TABLE**

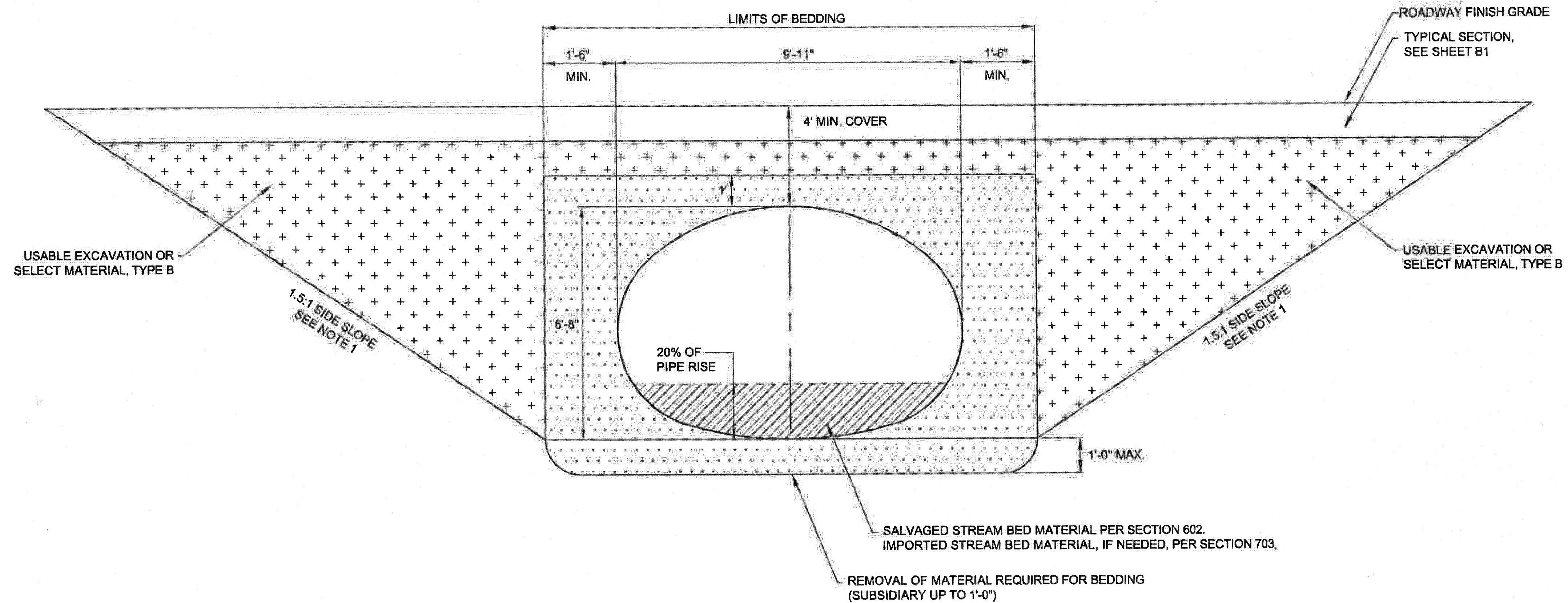
STA	DESCRIPTION	CL ELEV
4+00	Culvert Invert	176.8
4+01	Baffle #1	178.1
4+10	Baffle #2	177.8
4+20	Baffle #3	177.5
4+30	Baffle #4	177.3
4+40	Baffle #5	177.0
4+50	Baffle #6	176.8
4+60	Baffle #7	176.5
4+70	Baffle #8	176.2
4+80	Baffle #9	176.0
4+90	Baffle #10	175.7
5+00	Baffle #11	175.4
5+10	Baffle #12	175.2
5+20	Baffle #13	174.9
5+30	Baffle #14	174.7
5+39	Baffle #15	174.4
5+40	Culvert Invert	173.4

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
PE *[Signature]* Date 11/24/14

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: R. TROUSIL 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION	
DESIGNED BY: C. IVANISZEK DRAWN BY: R. GRANTHAM		POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS PROJECT # 68026	
PATH: Q:\POW68026\PLANSET\68026_E1-E2_MISC_DET.DWG TAB: E1 Friday, March 14, 2014 7:22:31 AM		GRANHAM, RICK L (DOT)	
PROJECT DESIGNATION <b>68026</b>		YEAR <b>2014</b>	SHEET NO. <b>E1</b>
FS #07RO-11100100-076		TOTAL SHEETS <b>13</b>	





# **TYPICAL 9'-11" x 6'-8" STRUCTURAL PLATE ALUMINUM PIPE-ARCH BEDDING DETAIL, ELEVATION VIEW**

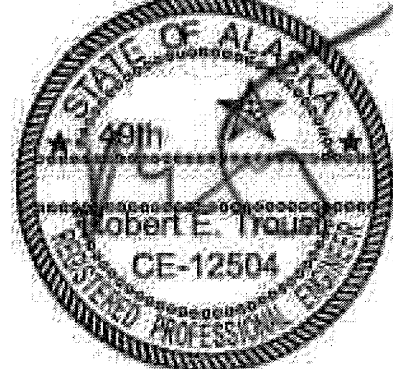
NTS

## **NOTES:**

1. SLOPE MAY VARY DUE TO BANK STABILITY.
2. ENGINEER SHALL VERIFY FINAL INVERT ELEVATIONS BASED ON ACTUAL SITE CONFIGURATIONS. CULVERT EMBEDMENT SHALL BE 20% OF PIPE RISE.

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PE *[Signature]* Date 11/24/14

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DESIGNED BY: C. IVANISZEK DRAWN BY: R. GRANTHAM		PATH: Q:\POW\68026\PLANSET\68026_E1-E2_MISC DET.DWG TAB: E2 Friday, March 14, 2014 7:22:35 AM GRANTHAM, RICK L (DOT)	
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68026</b> FS #07RO-11100100-076	YEAR 2014
		SHEET NO. E2	TOTAL SHEETS 13

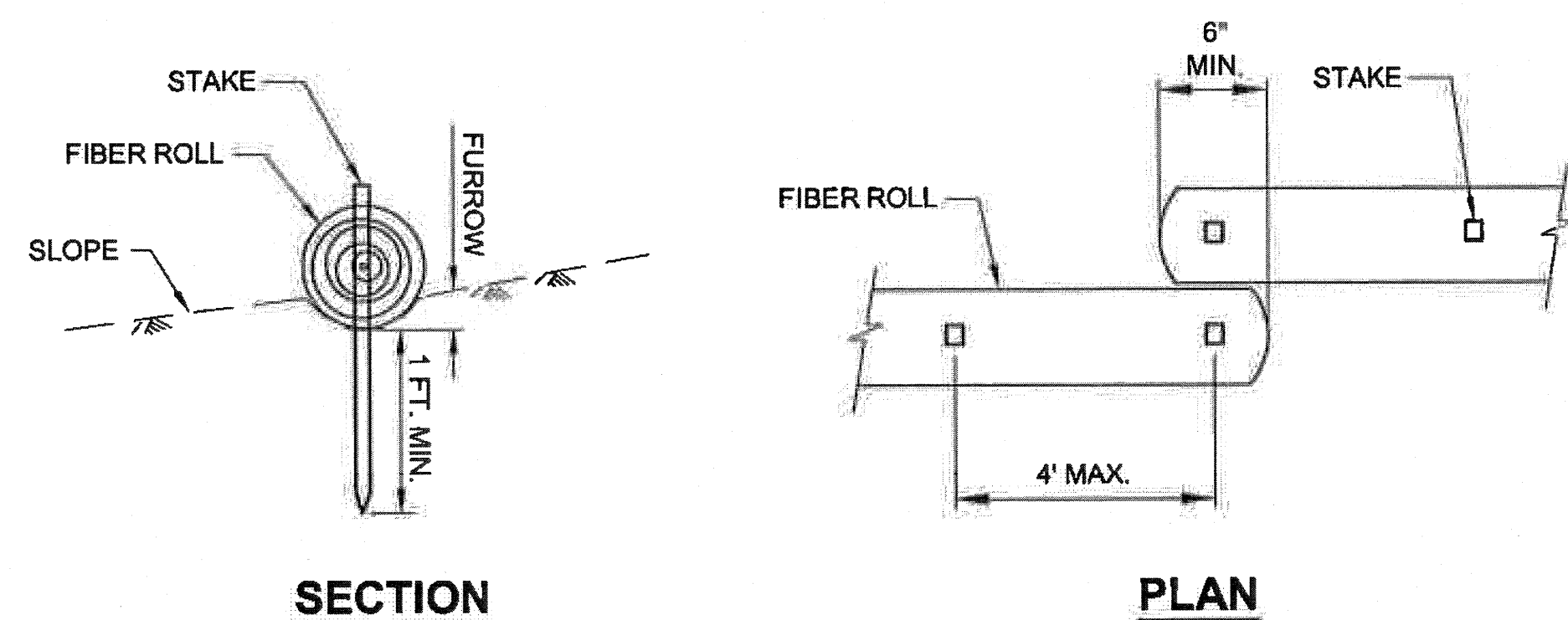




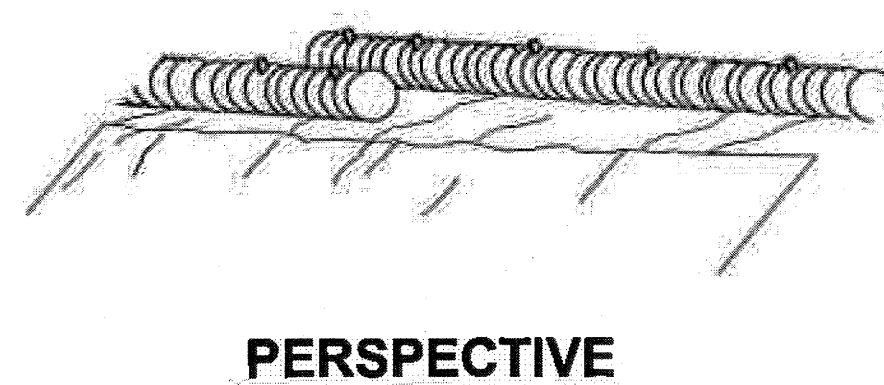




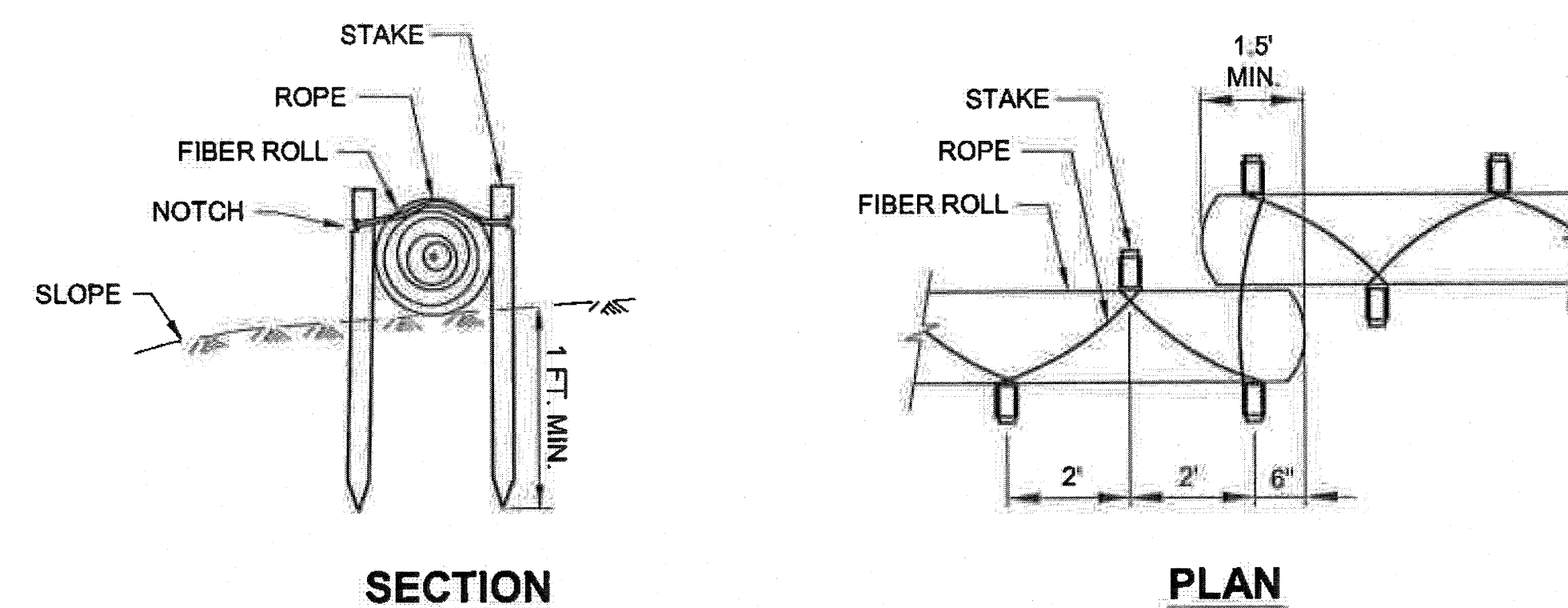




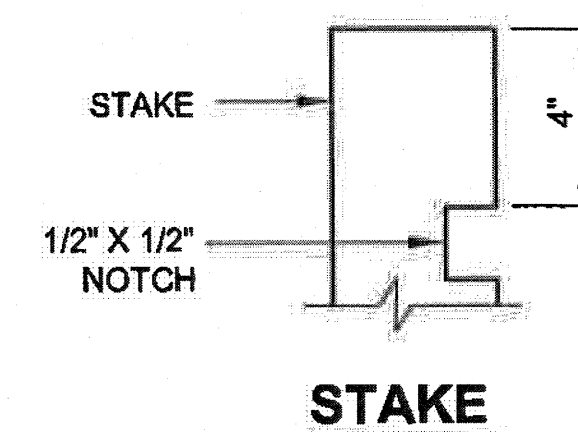
**FIBER ROLL (TYPE 1)**



**FIBER ROLL (TYPE 1)**

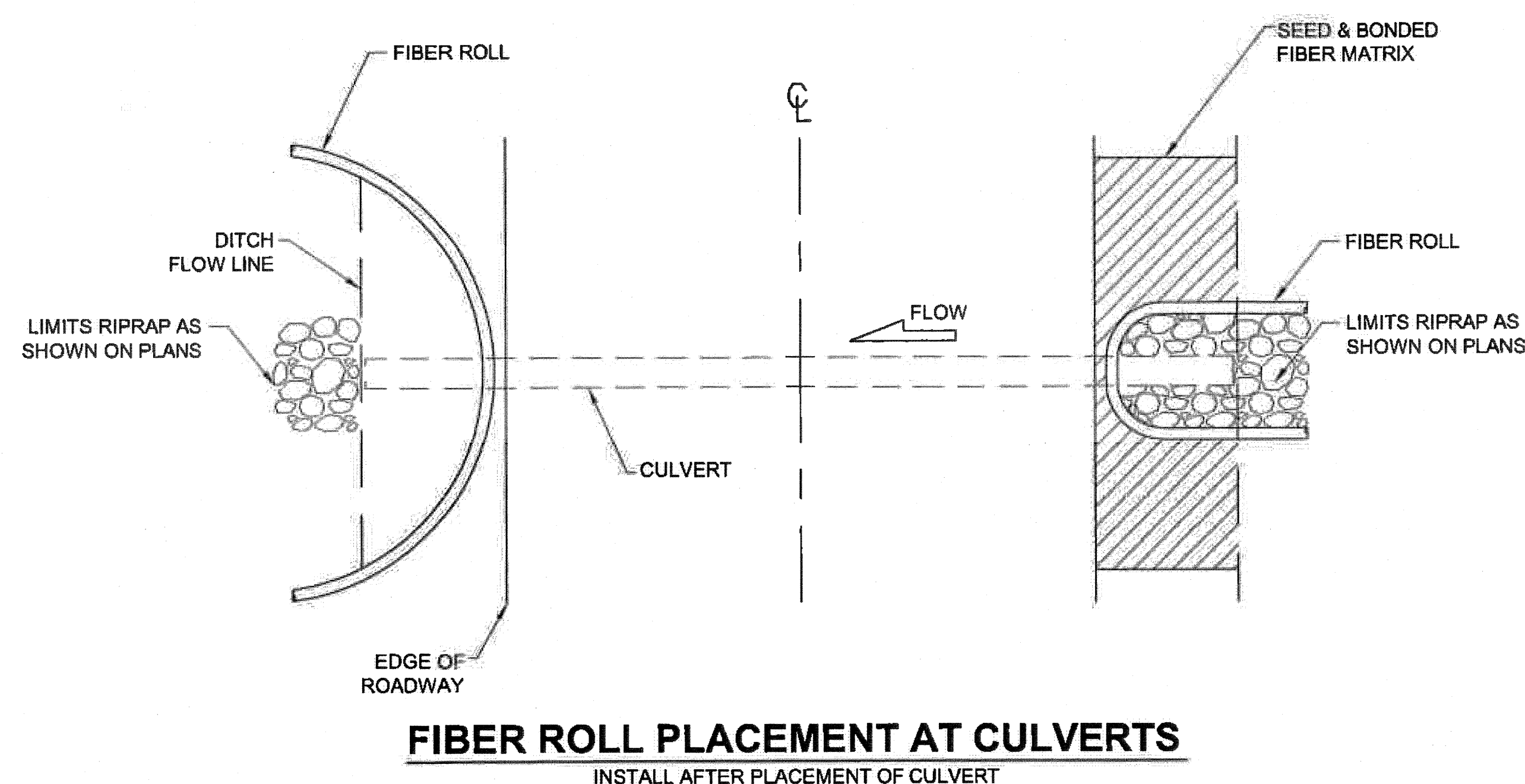


**FIBER ROLL (TYPE 2)**



**FIBER ROLL (TYPE 2)**

**TYPICAL FIBER ROLL DETAIL**



**GENERAL NOTES:**

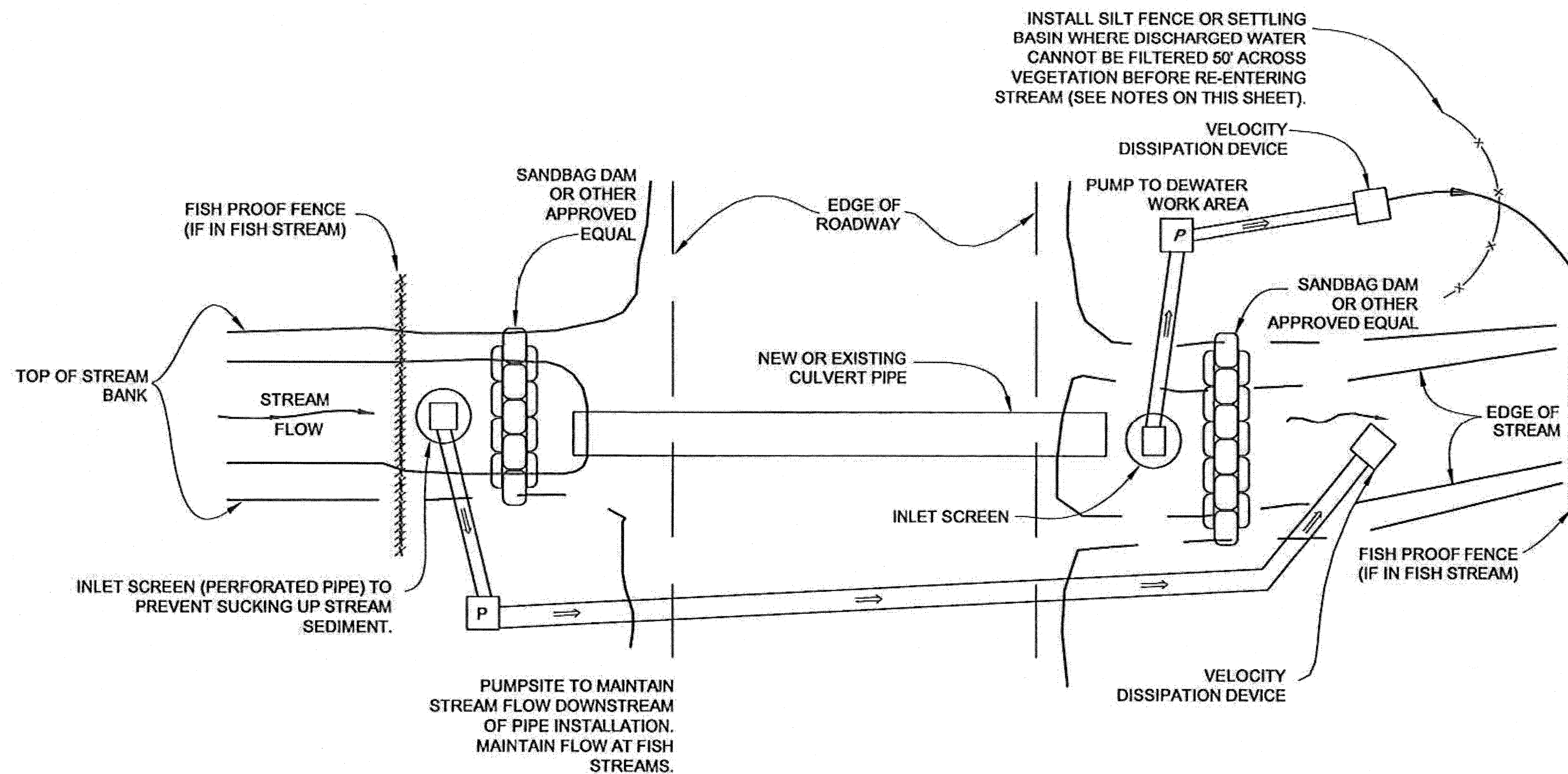
1. REFER TO APPENDIX B OF THE SPECIAL PROVISIONS FOR THE ENVIRONMENTAL COMMITMENTS.
2. THE LOCATIONS OF TEMPORARY EROSION & SEDIMENT POLLUTION CONTROLS ARE RECOMMENDATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE AND IMPLEMENT A WATER QUALITY CONTROL PLAN ACCORDING TO SECTION 641 OF THE SPECS.
3. INSTALL EROSION AND SEDIMENT CONTROL DEVICES IMMEDIATELY AFTER INSTALLING PIPE.
4. THE LOCATION AND LENGTH OF FIBER ROLLS IS DEPENDENT ON THE CONDITIONS OF THE SITE. LAP ADJACENT FIBER ROLLS TO PREVENT SEDIMENT BYPASS.
5. ANCHOR AS NECESSARY TO FIRMLY SECURE FIBER ROLLS AND PROVIDE CONTINUOUS CONTACT WITH THE SURFACE ON WHICH IT IS INSTALLED.
6. EROSION CONTROL MEASURES WILL BE EVALUATED BY THE ENGINEER BASED ON EFFECTIVENESS. THOSE FOUND INEFFECTIVE MUST BE REPLACED OR REPAIRED WITHIN 24 HOURS FOLLOWING NOTIFICATION.
7. MAINTAIN DEVICES. MONITOR DAILY.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
PE *[Signature]* Date 11/24/14

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CHECKED BY:		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION			
DESIGNED BY:		POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS PROJECT # 68026			
DRAWN BY: R. GRANTHAM		EROSION & POLLUTION CONTROL DETAILS			
PATH: Q:\POW\68026\PLANSET\68026_P1_ESCP.DWG		GRANTHAM, RICK L (DOT)			
TAB: P1 Friday, March 14, 2014 7:23:14 AM					
REVISIONS		PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
		68026	2014	P1	13
		FS #07RO-11100100-076			





## MAINTAINING FLOW AT FISH STREAMS

NTS

### NOTES:

1. USFS SHALL BE NOTIFIED PRIOR TO THE BEGINNING OF INSTREAM WORK. USFS SHALL PROVIDE FISH MONITORING AT THEIR DISCRETION.
2. MULTIPLE PUMPS MAY BE NECESSARY TO DEWATER WORK AREAS AND/OR MAINTAIN STREAM BYPASS FLOW. THE CONTRACTOR SHALL PROVIDE ADEQUATE QUANTITIES AND SIZES OF PUMPS.
3. THIS PLAN IS A RECOMMENDATION ONLY. CONTRACTOR SHALL SUBMIT A FINAL WORK PLAN FOR APPROVAL BY THE PROJECT ENGINEER FOR EACH FISH PIPE AT LEAST 10 DAYS BEFORE PLANNED INSTALLATION.
4. FOR PUMPING OPERATIONS, THE WATER INTAKE STRUCTURE SHALL BE CENTERED AND ENCLOSED IN A SCREENED BOX DESIGNED TO PREVENT FISH ENTRAPMENT, ENTRAINMENT, OR INJURY. THE INTAKE STRUCTURE MUST BE ENCLOSED AND CENTERED WITHIN A SCREENED BOX MADE OF NON-CORROSIVE MATERIAL WITH A MAXIMUM SCREEN-MESH SIZE OF 0.04 INCHES (1 mm). TO REDUCE FISH IMPINGEMENT ON SCREEN SURFACES, WATER VELOCITY AT THE SCREEN/WATER INTERFACE MAY NOT EXCEED 0.4 FEET PER SECOND WHEN THE PUMP IS OPERATING.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.  
PE *[Signature]* Date 4/24/14

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

ADDENDUM NUMBER		2	
ATTACHMENT NUMBER		1	
CHECKED BY: R. TROUSIL		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION	
DESIGNED BY: C. IVANISZEK		POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS PROJECT # 68026	
DRAWN BY: R. GRANTHAM		EROSION AND SEDIMENT CONTROL DETAILS	
PATH: Q:\POW\68026\PLANSET\68026_P2_ESCP.DWG		GRANTHAM, RICK L (DOT)	
TAB: P2 Friday, April 11, 2014 9:03:54 AM			
REVISIONS		PROJECT DESIGNATION	YEAR
NO.	DATE	DESCRIPTION	SHEET NO.
			13
FS #07RO-11100100-076		2014	P2



# PROPOSED STREAM CHANNEL LAYOUT

STATION	NORTHING, (FT)	EASTING, (FT)	~EXISTING GROUND ELEV. (FT)	CHANNEL DESIGN ELEV. (FT)	NOTES
2+22.00	1,320,659.0	2,858,588.9	179.9	179.9	Begin Channel
2+30.00	1,320,688.6	2,858,591.7	180.2	179.6	Centerline Channel
2+40.00	1,320,678.2	2,858,594.5	180.6	179.6	Centerline Channel
2+50.00	1,320,686.2	2,858,600.3	181.1	179.6	Centerline Channel
2+60.00	1,320,692.5	2,858,608.1	181.3	179.6	Centerline Channel
2+70.00	1,320,699.0	2,858,615.7	181.5	179.6	Centerline Channel
2+80.00	1,320,707.8	2,858,620.2	181.6	179.6	Centerline Channel
2+90.00	1,320,717.7	2,858,620.5	181.6	179.6	Centerline Channel
3+00.00	1,320,727.5	2,858,622.3	181.7	179.9	~ Beaver Dam
3+10.00	1,320,736.2	2,858,627.2	181.6	179.7	Centerline Channel
3+20.00	1,320,742.8	2,858,634.6	181.6	179.5	Centerline Channel
3+30.00	1,320,747.0	2,858,643.7	181.4	179.3	Centerline Channel
3+40.00	1,320,751.2	2,858,652.8	181.3	179.1	Centerline Channel
3+50.00	1,320,756.9	2,858,661.0	181.2	178.8	Spruce Trees
3+60.00	1,320,764.1	2,858,667.9	180.7	178.7	Spruce Trees
3+70.00	1,320,772.5	2,858,673.2	180.0	178.5	Centerline Channel
3+80.00	1,320,781.7	2,858,677.2	179.2	178.2	Centerline Channel
3+90.00	1,320,790.9	2,858,681.0	178.7	178.1	Centerline Channel
4+00.00	1,320,800.3	2,858,684.4	178.1	178.1	Culvert Intake

BEGIN STREAM  
CHANNEL  
EXCAVATION  
STA. 2+22

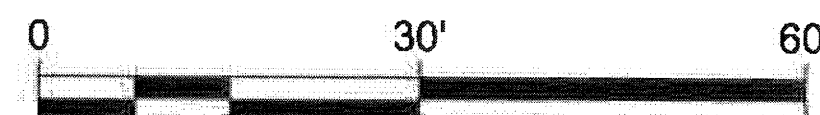
EXISTING BEAVER DAM  
LENGTH: 20 FT  
HEIGHT: 2.5 FT  
WIDTH: 6 FT

MATCH EXISTING RIPRAP  
EMBANKMENT

EXISTING TREES  
TO REMAIN

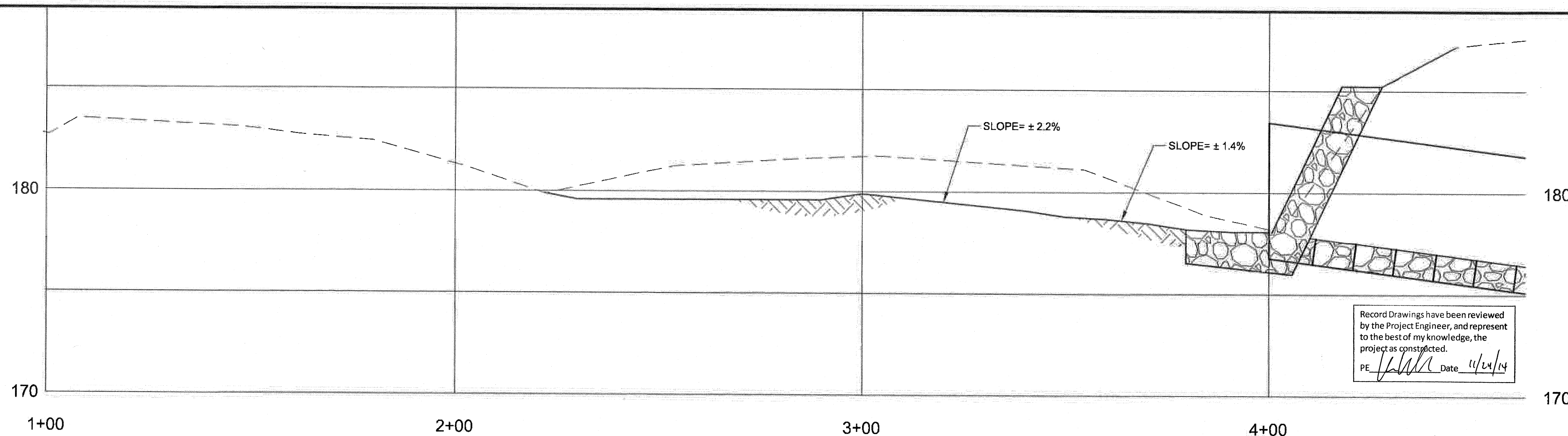
MATCH EXISTING RIPRAP  
EMBANKMENT

TO HYDABURG



SCALE IN FEET

"B" LINE PLAN VIEW



Record Drawings have been reviewed  
by the Project Engineer, and represent  
to the best of my knowledge, the  
project as constructed.  
PE *[Signature]* Date 11/24/14

"B" LINE PROFILE VIEW

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH: Q:\POW\68026\PLANSET\68026\_Q1\_STREAM  
PLANPROFILE.DWG

GRANTHAM, RICK L (DOT)  
TAB: Q1 Friday, March 14, 2014 7:23:56 AM

ADDENDUM NUMBER

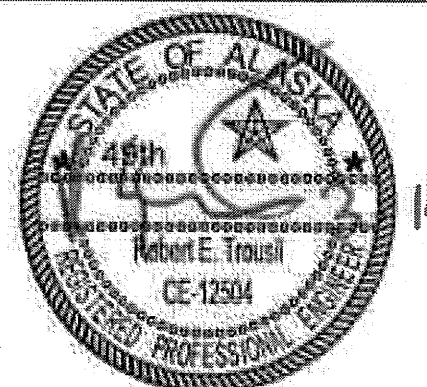
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

## PLAN LEGEND

CHECKED BY: R. TROUSIL



DESIGNED BY: C. IVANISZEK

DRAWN BY: R. GRANTHAM

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION

POW - HYDABURG  
HIGHWAY FISH PASSAGE  
IMPROVEMENTS  
PROJECT #68026

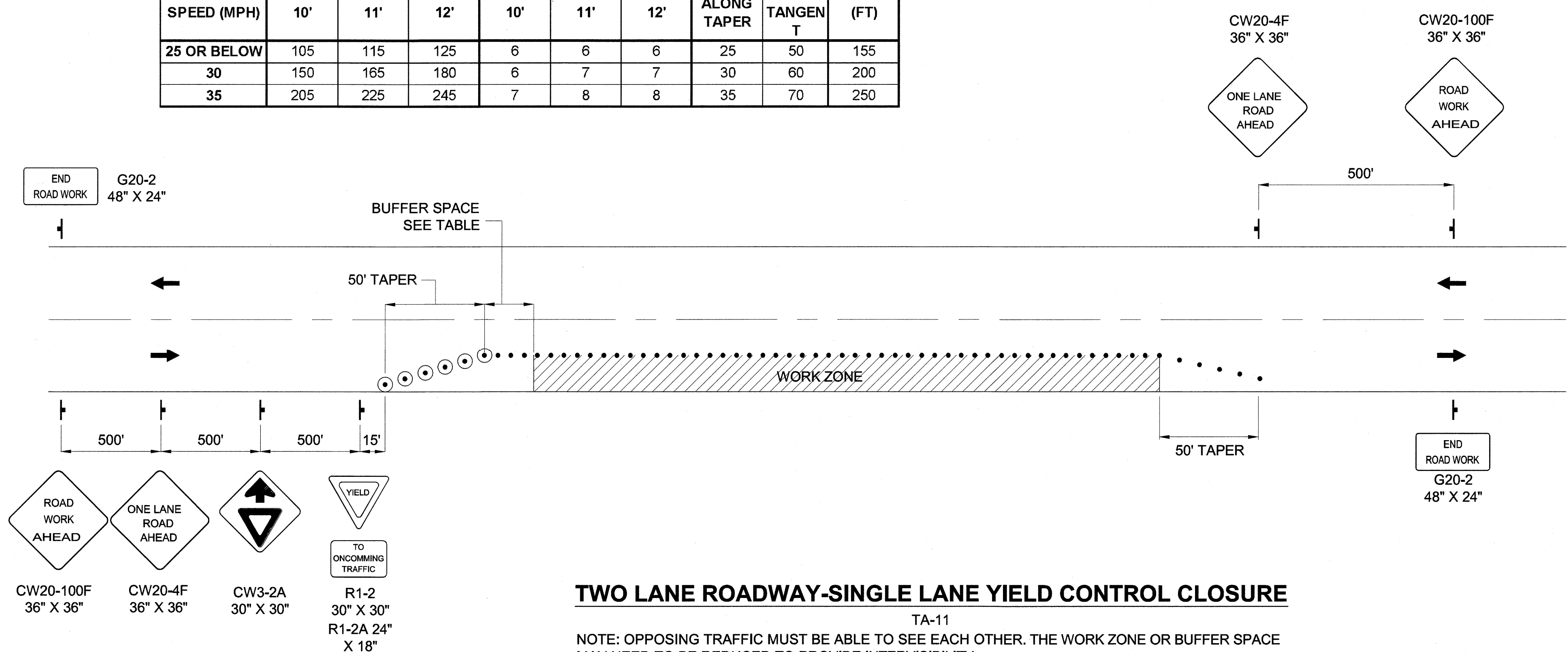
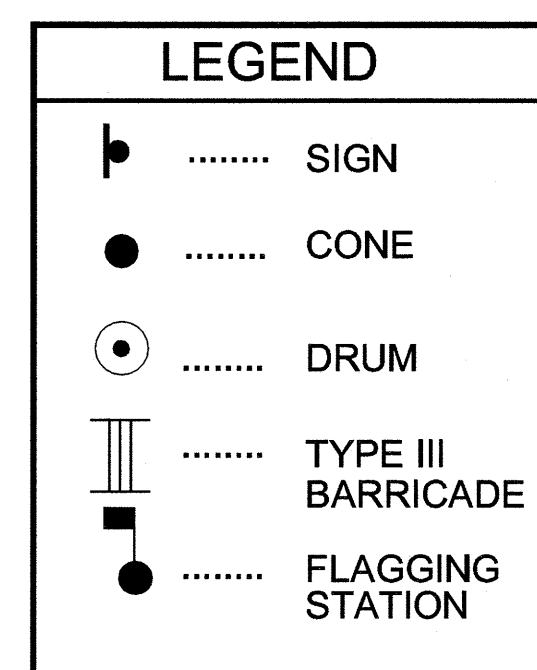
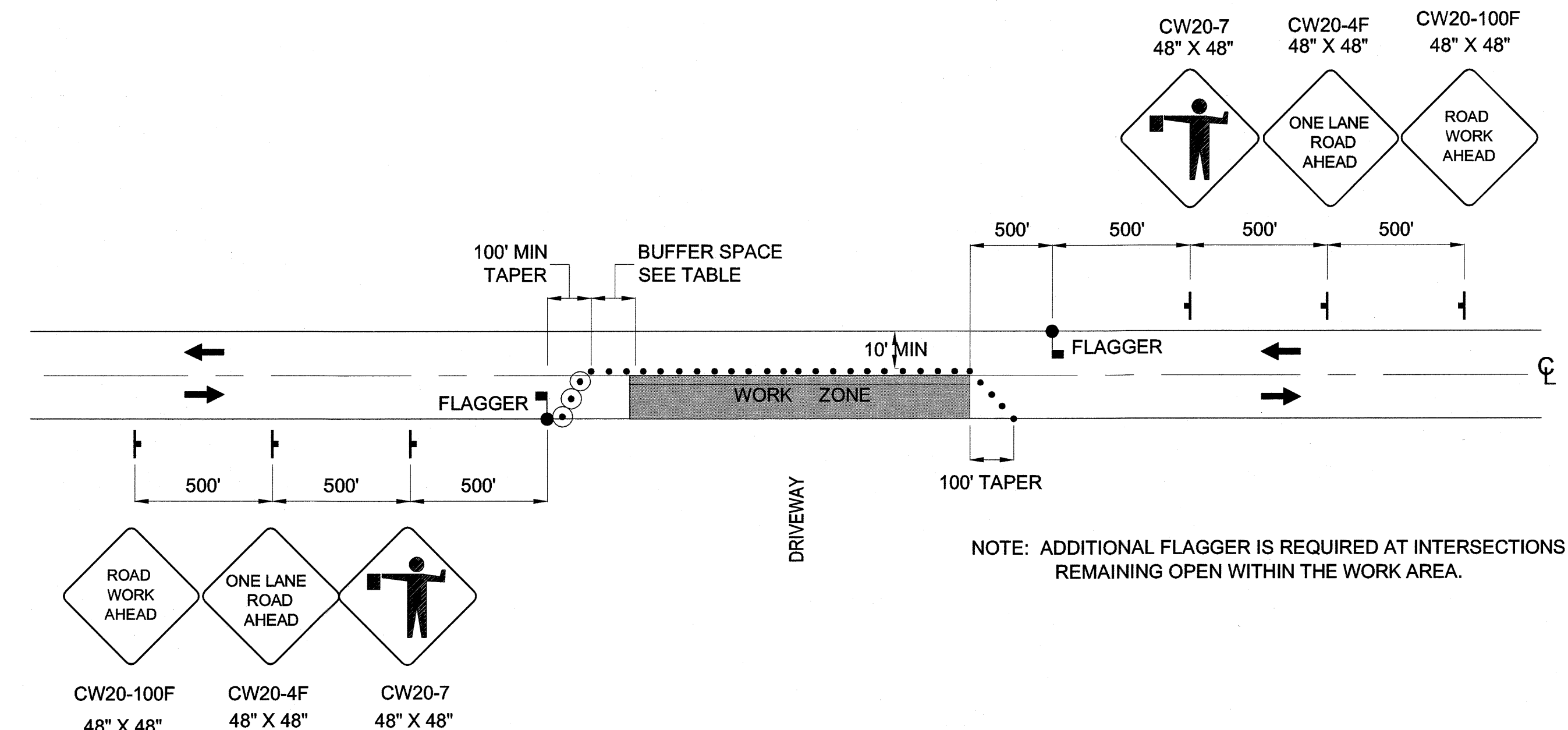
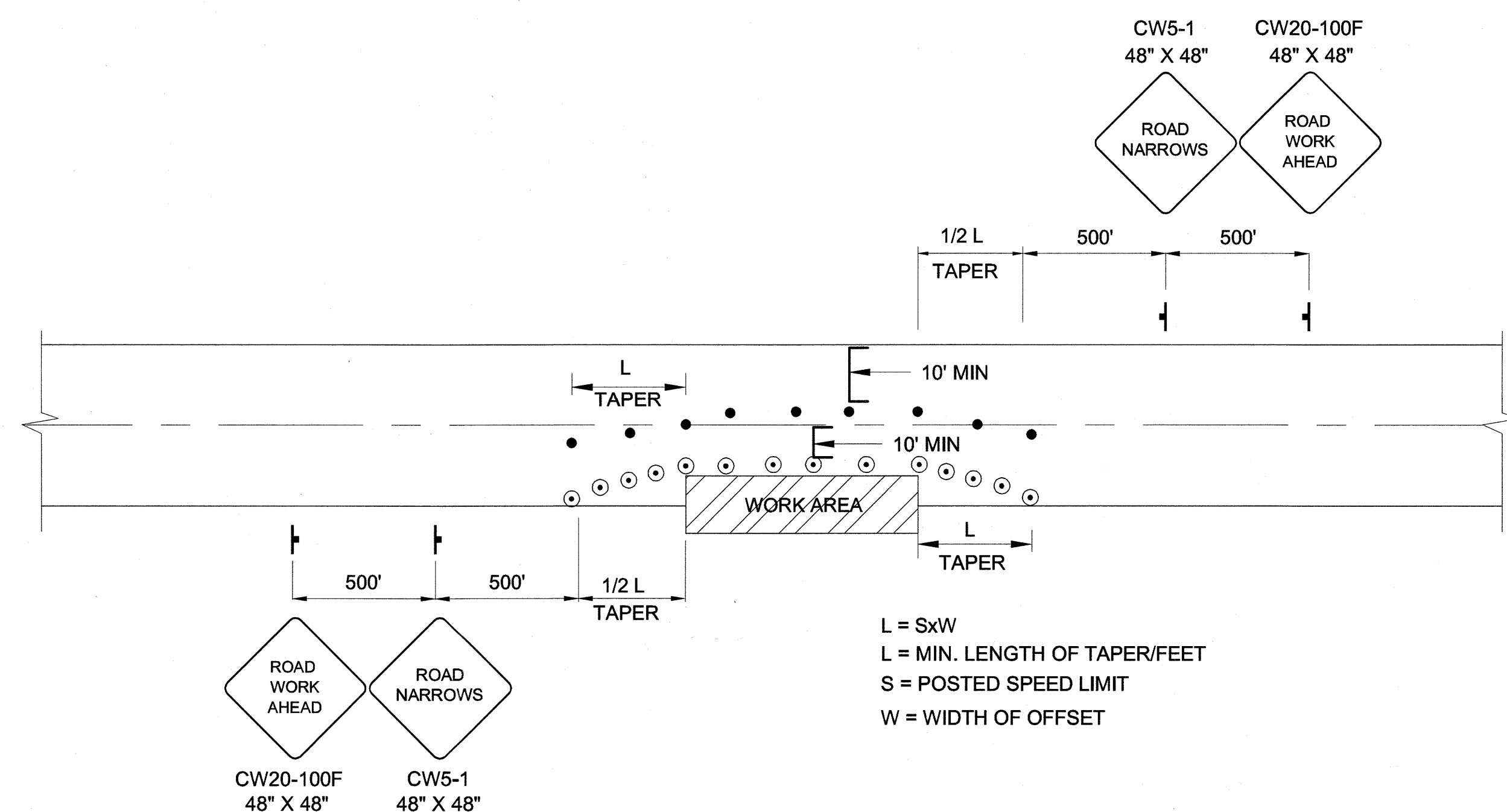
## STREAM LAYOUT

PROJECT DESIGNATION

68026 / FS #07RO-11100100-076

STATE	YEAR
ALASKA	2014
SHEET NUMBER	TOTAL SHEETS
Q1	13





DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

ADDENDUM NUMBER		<b>1</b>	
ATTACHMENT NUMBER		<b>1</b>	
CHECKED BY: D. EPSTEIN  TCR NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012.	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION  <b>POW HYDABURG HIGHWAY FISH PASSAGE IMPROVEMENTS PROJECT # 68026</b>		
<b>TRAFFIC CONTROL PLANS</b>			
DESIGNED BY: C. IVANISZEK DRAWN BY: R. GRANTHAM		PATH: Q:\POW\68026\PLANSET\68026_T1_TRAFFIC CTL.DWG TAB: T1 Thursday, March 27, 2014 2:56:41 PM GRANTHAM, RICK L (DOT)	
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68026</b> <b>FS #07RO-11100100-076</b>	
		YEAR <b>2014</b>	SHEET NO. <b>T1</b>
		TOTAL SHEETS <b>13</b>	